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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,228	01/30/2006	Tomoo Sugawara	4252-0112PUS1	2961
2292 7590 05/24/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER TESKIN, FRED M	
			ART UNIT 1713	PAPER NUMBER
			NOTIFICATION DATE 05/24/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No. 10/519,228	Applicant(s) SUGAWARA, TOMOO	
	Examiner Fred M. Teskin	Art Unit 1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-6 and 8-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-5, 8, 9 and 11-21 is/are rejected.
- 7) ☒ Claim(s) 6, 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Amendments presented in the reply of March 16, 2007 are acknowledged.

Claims 3-6 and 8-21 are currently pending and under examination herein.

The rejection of claims 1, 2 and 4 over WO '544 has been mooted by the cancellation of claims 1 and 2 and the amendment of claim 4 to depend from claim 3. As to the rejection of claims 3 and 4 over WO '544 in view of WO '096, applicant's arguments, see pages 8-10, filed March 16, 2007, have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made as detailed below.

Claims 3-6 and 8-21 of this application conflict with claims 2-18 of Application No. 11/783,705. 37 CFR 1.78(b) provides that when two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required in the absence of good and sufficient reason for their retention during pendency in more than one application. Applicant is required to either cancel the conflicting claims from all but one application or maintain a clear line of demarcation between the applications. See MPEP § 822.

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

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A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claims 3, 8 and 9 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 2, 6 and 7 of copending Application No. 11/783,705.

This is a provisional double patenting rejection since the conflicting claims have not in fact been patented. The two sets of claims define identical subject matter.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-5 and 11-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6071459 (Warner et al) in view of US 6465590 (Maughon et al).

The claimed invention, as recited in claim 3, is a method for manufacturing a post-crosslinkable thermoplastic resin comprising polymerizing a polymerizable composition (A) comprising a norbornene monomer, a metathesis polymerization catalyst, a chain transfer agent and a crosslinking agent by bulk polymerization. Claim 11 is drawn to a post-crosslinkable thermoplastic resin produced by the method according to claim 3.

The Warner et al reference differs from the claimed subject matter only in that a chain transfer agent is absent from the polymerization compositions specifically disclosed therein.

More specifically, Warner et al disclose metathesis-polymerized olefins, particularly polycycloolefins, incorporating flame retardant agents, and methods of producing the same. The patentees' invention involves polymerization of olefins through olefin metathesis reactions, especially ring opening metathesis polymerization (ROMP) reaction, with a ruthenium or osmium carbene catalyst in the presence of flame retardant agents. (Warner et al, col. 1, ll. 10-15 and col. 2, ll. 12-18.) Suitable cyclic olefin monomers include substituted and unsubstituted norbornene monomers and preference is expressed for conducting the reaction in the absence of solvents - i.e., by a bulk polymerization (*Id.*, col. 5, ll. 13+ and col. 9, ll. 10-11). Further, the reference explicitly provides for inclusion in the monomer starting material of one or more cross-linking agents "for initiating additional post cure cross-linking of the polyolefin" and states that "other methods may be used to post-cure the polyolefin material" (*Id.*, col. 9, ll. 20-22 and 29-35). In addition, the ROMP may be conducted in the presence of metallic materials as reinforcing materials, which may be "sized" with coupling agents such as silane and titanate species (see, *Id.*, at col. 10, ll. 15-50 and *cf.*, claims 18 *et seq.*).

Another method for providing metathesis polymerized polyolefin with post-crosslinkable end groups is taught by Maughon et al, namely, reaction of a cycloalkene such as norbornene with a reactive chain transfer agent having crosslinkable ends in

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the presence of a ruthenium or osmium catalyst to provide organic polymers with crosslinkable end groups. (Maughon et al, Abstract, col. 1, ll. 15-20 and col. 6, ll. 5+.) Ruthenium or osmium carbenes of defined formula are specifically disclosed as initiators (or catalysts) for use in the reference invention (*Id.*, col. 4, ll. 6+).

Given the suggestion in Warner et al to use multiple cross-linking agents as well as other methods to post-cure their polyolefin material, together with the similarity in ROMP catalyst and monomers between the cited references, those of ordinary skill would have been well motivated to include the reactive chain transfer agent of Maughan et al in the monomer starting material of Warner et al in the expectation of a obtaining polycyclolefin possessing enhanced post-crosslinkability. Accordingly, at the time of applicants' invention, it would have been obvious to an ordinarily skilled practitioner to modify Warner et al by including in the monomer starting material thereof a reactive chain transfer agent as per Maughan et al, with a reasonable expectation of successfully obtaining a post-crosslinkable thermoplastic resin as here claimed.

Claims 6 and 8-10 are free of the prior art.

Claims 6 and 10 are objected to as being dependent on a rejected base claim but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claim. Claims 8 and 9 would be allowable if amended or rewritten to overcome the provisional rejection set forth in this Office action and to include all the limitations of the base claim and any intervening claim.

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In view of the new grounds of rejection, this action is made non-final.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner F. M. Teskin whose telephone number is (571) 272-1116. The examiner can normally be reached on Monday through Thursday from 7:00 AM - 4:30 PM, and can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on (571) 272-1114. The appropriate fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

FMTeskin/05-17-07


FRED TESKIN
PRIMARY EXAMINER
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